

AMENDMENT UNDER 37 C.F.R. § 1.111
Application Serial No. 10/807,348
Attorney Docket No. Q80473

REMARKS

Upon entry of the present Amendment, claims 1-23 are all the claims pending in the application. Claims 1 is amended and new claim 23 is added. Claims 17-22 have been withdrawn from further consideration by virtue of the election without traverse of Group I (claims 1-16) filed on July 29, 2005. No new matter is presented.

To summarize the Office Action, claims 1-16 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Further, claims 1-16 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Badehi (U.S. Patent No. 6,777,767) in view of Spooner et al. (U.S. Patent Publication No. 2002/0096743, hereinafter “Spooner”). The outstanding rejections are addressed below.

Claim Rejections - 35 U.S.C. § 112

The Examiner alleges that it is unclear whether the adhesive is applied to the spacer or to a wafer. Further, the Examiner contends that it is unclear whether the transfer member is on the transparent substrate or the spacer.

Claim 1 is amended to clarify that the transfer member is adhered to the “plurality of spacers formed on the transparent substrate”. Further claim 1 is amended to clarify that the the transfer member is released from the transparent substrate to transfer the adhesive, which is applied to the transfer member, from the transfer member onto the plurality of spacers formed on the transparent substrate.

In view of the foregoing, claim 1 is believed to be sufficiently definite and reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

As noted above, claims 1-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Badehi in view of Spooner. Applicant respectfully traverses.

Claim 1 defines a method for manufacturing a solid-state imaging device by adhering a transparent substrate, in which a plurality of frame-shaped spacers are formed, via an adhesive to a wafer on which plural solid-state imaging elements are formed, and by dividing the transparent substrate and the wafer for each solid-state imaging element, each of the solid-state imaging elements on the wafer being surrounded by each of the plurality of spacers. As discussed below, neither Badehi nor Spooner, whether taken alone or in combination, reasonably teaches or suggests at least the features of applying pressure to the transparent substrate and the transfer member, which is adhered to the plurality of spacers formed on the transparent substrate, and releasing the transfer member from the transparent substrate to transfer the adhesive, which is applied to the transfer member, from the transfer member onto the plurality of spacers formed on the transparent substrate, as claimed.

For instance, Badehi teaches a packaged integrated circuit in which a packaging layer is sealed over a microstructure by an adhesive, thereby defining a gap between the crystalline substrate and the packaging layer. *See* Badehi at col. 1, lines 66 - col. 2, line 5. Further, Badehi teaches that the packaging layer and associated spacer elements are sealed by an adhesive so as

to define a cavity between a microlens array formed on the crystalline substrate so as to define a cavity between the microlens array and a packaging layer. *See* Badehi at col. 3, lines 43-55.

However, Badehi fails to suggest that the adhesive is applied to the spacer elements in the manner claimed. Rather, Badehi merely teaches that adhesive is applied “adjacent and between” the spacers. *See* Badehi at col. 4, line 63 - col. 5, line 2. Thus, Badehi is silent with respect to the recited steps of adhering a transfer member, applying pressure to the transparent substrate and the transfer member, and releasing the transfer member from the transparent substrate to transfer the adhesive, as claimed.

Further, Spooner fails to compensate for the deficiencies of Badehi. In this regard, Applicant notes that Spooner teaches a method for protecting a MEMS structure during dicing of a MEMS wafer to produce individual MEMS dies in which a wafer cap is mounted on the MEMS wafer. The wafer cap is recessed in areas corresponding to the locations of the MEMS structures sites on the MEMS wafer. After the wafer cap is mounted, the MEMS wafer is diced into a plurality of MEMS dies. *See* Spooner at paragraph 24.

However, Spooner teaches that an adhesive layer 103 is applied to a spacer layer 101 so as to bond the spacer layer to the MEMS wafer, and a wafer cap 110 is then applied over the spacer layer 101 to enclose the MEMS structures 5. *See* Spooner at paragraphs 107-108 and 111-112. Spooner fails to suggest that the adhesive tape is released to transfer the adhesive, as required by claim 1. Rather, Spooner merely teaches that an adhesive tape is applied to a spacer layer, and the spacer layer with the adhesive tape is simply applied to the MEMS wafer.

By contrast, claim 1 requires a transfer member, to which the adhesive is applied, is adhered to the plurality of spacers formed on a transparent substrate, pressure is applied to the transparent substrate and the transfer member, and the transfer member is released from the transparent substrate to transfer the adhesive, which is applied to the transfer member, from the transfer member onto the plurality of spacers formed on the transparent substrate. Spooner, as evidenced by the foregoing, does not suggest that the adhesive tape is released to transfer the adhesive in the manner claimed. Rather, Spooner teaches that the tape is simply applied to an end of the spacer layer.

As discussed above, Spooner fails to compensate for the deficiencies of Badehi. Therefore, even assuming *arguendo* that the motivation asserted by the Examiner to combine Badehi and Spooner is proper, the combined teachings would not teach or suggest all the features of claim 1. Accordingly, reconsideration and withdrawal of the rejection of claim 1 is requested. Further, claims 2-16 and 23 are believed to be allowable at least by virtue of depending from claim 1, and allowance of claims 1-16 and 23 is therefore requested.

With respect to dependent claims 6, 8, 9 and 14, Applicant additionally submits that the Examiner has failed to properly address the limitations recited and these claims and the combined teaching of Badehi and Spooner does not teach or suggest the respective features of these claims. For instance, claim 6 recites that the transfer member is peeled off at a constant angle. However, the Examiner has not identified any portion of Spooner or Badehi which discloses any peeling off of the transfer member. Further, claims 8 and 9 relate to applying a release agent to the transfer member. Likewise, the Examiner has not identified any application

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of a release agent. Further, claim 14 defines the viscosity of the adhesive when transferred to the spacer. As discussed above, however, the combination of Badehi and Spooner does not teach transferring the adhesive, as claimed. Thus, claims 6, 8, 9 and 14 are additionally believed to be allowable for at least these reasons.

New claim

In order to provide additional claim coverage, merited by the scope of the invention, new claim 23 is added. Claim 23 is believed to be allowable at least by virtue of depending from claim 1.

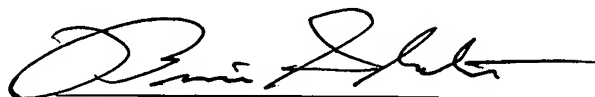
Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



Brian K. Shelton
Registration No. 50,245

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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